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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,891

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EXAMINER

PEYTON, DESMOND C

ART UNIT

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3749

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,891	Applicant(s) KIM ET AL.	
	Examiner DESMOND PEYTON	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-28 is/are pending in the application.
- 5a) Of the above claim(s) 6, 14 and 27 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-5, 7-13, 15-26 and 28 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☒ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 28 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The RCE filed 13 April 2011 has been entered. Claims 1-5, 7-13, 15-26 and 28 are currently pending in this application. Claims 1, 2, 5, 18, 21, 22 and 28 are amended. Claims 3, 4, 7-13, 15-17, and 24-26 are previously presented. Claims 19, 20 and 23 are original claims. Claims 6, 14 and 27 are cancelled by applicant.

Specification

The disclosure is objected to because of the following informalities: inconsistent terminology for example on page 14, lines 20 and 22, the terms "radian heating" and "radian heat" respectively is inconsistent with and should be replaced by --radiant heating-- and --radiant heat--.

Appropriate correction is required.

Claim Objections

Claims 18 and 22 are objected to because of the following informalities:

In Re Claim 18, in line 11 the terms "end a respective" should be replaced with --end of a respective--.

In Re Claim 22, in line 3 the terms "positioned the" should be replaced with --positioned on the--.

Appropriate corrections are required for claims 18 and 22.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

Claims 1, 18, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 18, 21 and 22 the limitation "sectional area" is unclear as to what the applicant is calling a sectional area. Examiner interprets the sectional area as the total area enclosed by the outer diameter of the two ends of the claimed structural limitations and not the cross sectional area of the material at the two ends.

Claim 18 recites the limitation "the second end" in line 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the second end" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

Claims 1-5, 7-10, 15, 17-24 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by L.D. Houlis (US Patent No. 2,494,243) hereinafter *Houlis '243*.

In Re Claim 1, *Houlis '243* discloses a device (Fig. 6) that supplies mixed gas to radiant heating type gas burners (Figs. 6 and 7) having a housing (#110, Figs. 11 and 12), a plurality of burner assemblies (comprising #1-4, Figs. 11 and 12) in the housing for combustion of the mixed gas therein, each of the plurality of burner assemblies having a burner chamber (#1, col. 3, lines 6-8) that receives a mixture of fuel gas and air therein, and a glass plate capable of being placed on top of the housing, the device comprising:

a plurality of mixing tubes (comprising #4, #5 and #6, best shown in Fig. 1) **respectively in communication with the plurality of burner chambers for supplying the fuel gas and air thereto;**

a plurality of gas nozzles (comprising #21, best shown in Fig. 1) **for respectively spraying the fuel gas into the mixing tubes;**

a plurality of air supply tubes (comprising #10, #54 and #53, Figs. 6 and 7) **for respectively directing air toward the plurality of the mixing tubes, wherein a first end (attached to #3) of each of the plurality of mixing tubes is coupled to a corresponding burner chamber and a first end (at #10, Fig. 6) of each of the plurality of air supply tubes is coaxially aligned with a second end (attached to #7, Fig. 6) of a corresponding mixing tube, with a predetermined gap (the distance from #94 and a corresponding second end of the mixing tube, shown in Fig 3) formed there between, wherein a sectional area (defined by the outer most circumference of #10, Fig. 6) of the first end of each air supply tube, facing the second end of the respective mixing tube, is greater than a sectional area (defined by the outer most circumference of #4) of the second end of the respective mixing tube;**

a plurality of air passages (through #7) defined by the predetermined gaps formed between the air supply tubes and the mixing tubes, wherein air outside of the plurality of mixing tubes and within the housing is drawn through the plurality of air passages and into the plurality of mixing tubes by a pressure difference between the outside and inside of the plurality of mixing tubes; and

at least one fan (#50, col. 5, line 48) **in communication with a second end** (at the junction of #53 and #52, Fig. 7) **of at least one of the plurality of air supply tubes for supplying air thereto.**

The examiner notes and interprets since the preamble of claims 1, 18, 21 and 22 are directed to the subcombination of “a device that supplies mixed gas” and not the overall combination of the supply device that supplies mixed gas and the burner chamber within a housing with a glass plate or the environment in which the device is used, the recitations of the burner chambers, housing and glass plate are interpreted as intended use only of the device that supplies mixed gas. Therefore, all that is needed from a prior art is a device that is capable of supplying mixed gas to a burner chamber within a housing having a glass plate.

In Re Claim 2, *Houlis '243* further discloses **the device** as applied in **Claim 1** above, **wherein the predetermined gap formed between; the first end of each air supply tube and the second end of the respective mixing tube is formed in a radial direction** (in as much as the inner diameter of the first end of each air supply tube is greater than the outer diameter of the second end of the respective mixing tube forming a gap in the radial direction, ref. Fig. 6).

In Re Claim 3, *Houlis '243* further discloses **the device** as applied in **Claim 1** above, **wherein the predetermined gap formed between the first end of each air supply tube and the second end of the respective mixing tube is formed in a longitudinal direction.**

In Re Claim 4, *Houlis '243* further discloses the **device** as applied in **Claim 1**, wherein the **at least one fan** (#50, Fig. 11) **is provided at an outside of the housing** (as shown in Fig. 11, *Houlis '243*).

In Re Claim 5, *Houlis '243* discloses the **device** as applied in **Claim 1** above, further comprising **at least one air supply chamber** (#52, Fig. 6) formed **between** the plurality of air supply tubes and the **at least one fan** so as to **provide air from** the **at least one fan** to the plurality of air supply tubes.

In Re Claim 7, *Houlis '243* discloses the **device** as applied in **Claim 1** above, further comprising **at least one branch tube** (#52, Fig. 6) **having a first end** (#50', col. 5, line 50, Fig. 6) **connected to the at least one fan**, and a **second end** (at the junction of #53 and #52, Fig. 7) **in communication with the plurality of the air supply tubes** so as to **distribute air from the at least one fan** to the plurality of air supply tubes.

In Re Claim 8, *Houlis '243* discloses the **device** as applied in **Claim 1** above, further comprising a **plurality of connecting members** (#7, Fig. 6, *Houlis '243*) that each **connect a mixing tube of the plurality of mixing tubes to a corresponding air supply tube**.

In Re Claim 9, *Houlis '243* further discloses the **device** as applied in **Claim 8** above, wherein each of the **plurality of connecting members** includes a **nozzle holding member** (#16, Fig. 1, *Houlis '243*) that **holds a corresponding gas nozzle** (#20 shown in Fig. 1, *Houlis '243*) **of the plurality of gas nozzles**.

In Re Claim 10, *Houlis '243* further discloses **the device** as applied in **Claim 8** above, **further comprising a fastening device** (comprising #11 and #12, Fig. 1, *Houlis '243*), **that fastens each connecting member to a respective mixing tube and air supply tube.**

In Re Claim 15, *Houlis '243* further discloses **the device** as applied in **Claim 1** above, **wherein a diameter of the first end** (the largest diameter portion of #10, Fig. 7) **of each air supply tube facing the second end of the respective mixing tube** (#4, Fig. 7, *Houlis '243*) **is greater than a diameter of other portions of the air supply tube so as to have an expanded tube form.**

In Re Claim 17, *Houlis '243* further discloses **the device** as applied in **Claim 1** above, **wherein each of the plurality of mixing tubes is connected to a plurality of air supply tubes for supplying air thereto** (Fig. 7).

In Re Claim 18, *Houlis '243* discloses **a device** (Fig. 6) **that supplies mixed gas capably to radiant heating type gas burners** (Figs. 6 and 7) **having a housing** (#110, Figs. 11 and 12), **a plurality of burner assemblies** (comprising #1-4, Figs. 11 and 12) **provided in the housing for combustion of the mixed gas therein, each of the plurality of burner assemblies having a burner chamber** (#1, col. 3, lines 6-8) **that receives a mixture of fuel gas and air thereto, and a glass plate** (ref. Claim 1 above) **positioned on the housing, the device comprising:**

a plurality of mixing tubes (comprising #4, #5 and #6, best shown in Fig. 1) **respectively in communication with the plurality of burner chambers;**

a plurality of gas nozzles (comprising #21, best shown in Fig. 1) **respectively in communication with the plurality of mixing tubes;**

a plurality of air supply tubes (comprising #10, #54 and #53, Figs. 6 and 7) **each spaced a predetermined distance apart from and coaxially aligned with a corresponding end of a respective mixing tube of the plurality of mixing tubes, wherein a sectional area of the first end of each air supply tube, facing the second end of the respective mixing tube, is greater than a sectional area of the second end of the respective mixing tube;**

a plurality of air passages (through #7) **each defined by a predetermined gap formed between one of the plurality of air supply tubes and the respective mixing tube, wherein air outside of the plurality of mixing tubes and within the housing is drawn through the plurality of air passages and into the plurality of mixing tubes by a pressure difference between the outside and inside of the plurality of mixing tubes;**

at least one fan (#50, col. 5, line 48) **that supplies air to the plurality of air supply tubes; and**

at least one air supply chamber (#52, Figs. 6 and 7) **provided between the plurality of air supply tubes and the at least one fan so as to direct air from the fan to the plurality of air supply tubes.**

In Re Claim 19, *Houlis '243* discloses **the device** as applied in **Claim 18** above, **wherein the air supply chamber is capable of being integrated inside of the housing.**

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In Re Claim 20, *Houlis* '243 discloses **the device** as applied in **Claim 18** above, wherein the air supply chamber has a plurality of air supply tubes of other burner assemblies connected thereto (Fig. 7).

In Re Claim 21, Houllis '243 discloses a device (Fig. 6) that supplies mixed gas capably to radiant heating type gas burners of having a housing, a plurality of burner assemblies provided in the housing for, each of the plurality of burner assemblies having with a burner chamber that receives a mixture of fuel gas and air therein, and a glass plate position on the housing (ref. claim 1 above), the device comprising:

a plurality of mixing tubes (comprising #4, #5 and #6, best shown in Fig. 1) respectively in communication with the plurality of burner chambers;

a plurality of gas nozzles (comprising #21, best shown in Fig. 1) respectively in communication with the plurality of mixing tubes so as to spray fuel gas therein;

a plurality of air supply tubes (comprising #10, #54 and #53, Figs. 6 and 7) each spaced a predetermined distance apart from and coaxially aligned with a corresponding end (at #4 attached to #7, Fig. 6) of a respective mixing tube of the plurality of mixing tubes, wherein a sectional area (defined by the outer most circumference of #10, Fig. 6) of the first end of each air supply tube, facing the second end (at #4 attached to #7, Fig. 6) of the respective mixing tube, is greater than a sectional area (defined by the outer most circumference of #4) of the second end of the respective mixing tube;

a plurality of air passages (through #7) each defined by a predetermined gap formed between one of the plurality of air supply tubes and its respective mixing tube, wherein air outside of the plurality of mixing tubes and within the housing is

drawn through the plurality of air passages and into the plurality of mixing tubes by a pressure difference between the outside and inside of the plurality of mixing tubes;

a fan (#50, col. 5, line 48) in communication with the plurality of air supply tubes; and

at least one branch tube (#52, Figs. 6 and 7) having a first end (#50', Fig. 6, col. 5, line 50), connected to the fan, and a second end (at the junctions of #52 and #53) connected to the plurality air supply tubes so as to distribute air from the fan to the plurality of air supply tubes.

In Re Claim 22, Houllis '243 discloses a device (Fig. 6) that supplies mixed gas to gas burners (Figs. 6 and 7) having a housing (#110, Figs. 11 and 12), a plurality of burner assemblies (comprising #1-4, Figs. 11 and 12) provided in the housing, and each having a burner chamber (#1, col. 3, lines 6-8) that receives a mixture of fuel gas and air therein, and a glass plate capably positioned on the housing, the device comprising:

a mixing tube assembly, including:

a mixing tube (comprising #4, #5 and #6, best shown in Fig. 1) having a first end (attached to #3) in communication with the burner chamber so as to supply fuel gas and air to the burner chamber;

an air supply tube (comprising #10, #54 and #53, Figs. 6 and 7) positioned at an outside of the mixing tube and coaxially with the mixing tube such that a concentric gap is formed between a first end (at #10, Fig. 6) of the air supply tube

and a second end (attached to #7, Fig. 6) **of the mixing tube in a radial direction,**
wherein a sectional area (defined by the outer most circumference of #10, Fig. 6) **of**
the first end of the air supply tube is greater than or equal to a sectional area
(defined by the outer most circumference of #4) **of the second end of the mixing**
tube;

an air passage (through #7) **defined by the gap formed between the first end**
of the air supply tube and the second end of the mixing tube, wherein a pressure
difference between the outside and an interior of the mixing tube draws air from
outside of the mixing tube and within the housing into the mixing tube through
the air passage; and

a connecting member (comprising #7, #11 and #12, Fig. 6) **that connects the**
mixing tube and the air supply tube so as to form a single unit;

a gas nozzle (comprising #21, best shown in Fig. 1) **spaced a predetermined**
distance apart from the mixing tube so as to spray gas toward the mixing tube;
and

a fan (#50, col. 5, line 48) **that blows air into the air supply tube.**

In Re Claim 23, Houlis '243 further discloses the device as applied in Claim 22
above, wherein the connecting member includes a nozzle holding part for holding
the gas nozzle (comprising #16 and #19, best shown in Fig. 1).

In Re Claim 24, Houlis '243 further discloses the device as applied in Claim 22
above, further comprising a fastening device (the corresponding threading of #7 with

#4 and #10, exemplified in Fig. 1) **that fixes the connecting member to opposite side parts of the mixing tube and the air supply tube.**

In Re Claim 28, *Houlis* '243 further discloses **the device** as applied in **Claim 22** above, **wherein a diameter of the first end of the air supply tube facing the second end of the mixing tube is greater than a diameter of other portions thereof such that the air supply tube has an expanded tube form.**

Claim Rejections - 35 USC § 103

Claims 11, 12 and 25 are rejected under 35 U.S.C. 103(a) as being **unpatentable over *Houlis* '243 in view of Riehl (US Patent No. 5,193,273) hereinafter *Riehl* '273.**

In Re Claim 11, *Houlis* '243 discloses **the device** as applied in **Claim 8** above, except explicitly wherein each mixing tube, corresponding air supply tube, and corresponding connecting member form a mixing tube assembly having two symmetric members bonded together.

Riehl '273 discloses a method of making a set burner construction wherein the mixing tube (the Venturi section #11), the air supply tube (#25 at #27, col. 3, line 34), and the connecting member (#23 and #24, Fig. 6) form a mixing tube assembly having two symmetric members (#21 and #22, Fig. 6) bonded together (see Fig. 6).

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to construct *Houlis* '243's mixing tube assembly **wherein each mixing tube, corresponding air supply tube, and corresponding connecting**

member form a mixing tube assembly having two symmetric members bonded together as taught by *Riehl* '273 to simplify assembly and replacement.

In Re Claim 12, *Houlis* '243 in view of *Riehl* '273 further discloses **the device** as applied in **Claim 11** above, **wherein the mixing tube assembly comprises;**

a first mixing tube assembly (#21, Fig. 6, col. 3, line 18, *Riehl* '273) having a first mixing tube part forming a first half of the mixing tube, a first air supply tube part forming a first half of the air supply tube, and a plate shaped first connection member that extends outward from two opposite sides of the first mixing tube part and the first air supply part as a single unit so as to connect the first mixing tube part and the first air supply part as a single unit; and

a second mixing tube assembly (#22, Fig. 6, *Riehl* '273) having a second mixing tube part forming a second half of the mixing tube, a second air supply tube part forming a second half of the air supply tube, and a plate shaped second connection member that extends outward from two opposite sides of the second mixing tube part and the second air supply part as a single unit to connect the second mixing tube part and the second air supply part as a single unit, wherein the second connection member is bonded with the first connection member
(reference claim 11 above for more detail).

In Re Claim 25, *Houlis* '243 further discloses **the device** as applied in **Claim 22** above, except explicitly wherein the mixing tube assembly comprises;

a first mixing tube assembly having a first mixing tube part forming a first half of the mixing tube, a first air supply tube part forming a first half of the air supply tube, and

a plate shaped first connection member that extends outward from two opposite sides of the first mixing tube part and the first air supply part as a single unit so as to connect the first mixing tube part and the first air supply part as a single unit; and

a second mixing tube assembly having a second mixing tube part forming a second half of the mixing tube, a second air supply tube part forming a second half of the air supply tube, and a plate shaped second connection member that extends outward from two opposite sides of the second mixing tube part and the second air supply part as a single unit so as to connect the second mixing tube part and the second air supply part as a single unit, wherein the second connection member is bonded with the first connection member.

Riehl '273 discloses a method of making a set burner construction wherein the mixing tube (the Venturi section #11), the air supply tube (#25 at #27, Fig. 1, col. 3, line 34), and the connecting member (#23 and #24, Fig. 6) form a mixing tube assembly having two symmetric members (plate means #21 and #22, Fig. 6) forming a single unit (shown in Fig. 1), wherein the mixing tube assembly comprises;

a first mixing tube assembly (#21, the upper half of the mixing tube assembly represented in Fig. 6) having a first mixing tube part forming a first half of the mixing tube, a first air supply tube part forming a first half of the air supply tube, and a plate shaped first connection member that extends outward from two opposite sides of the first mixing tube part and the first air supply part as a single unit so as to connect the first mixing tube part and the first air supply part as a single unit; and

a second mixing tube assembly (#22, the lower half of the assembly represented in Fig. 6) having a second mixing tube part forming a second half of the mixing tube, a second air supply tube part forming a second half of the air supply tube, and a plate shaped second connection member that extends outward from two opposite sides of the second mixing tube part and the second air supply part as a single unit so as to connect the second mixing tube part and the second air supply part as a single unit, wherein the second connection member is bonded with the first connection member.

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to construct *Houlis* '243's mixing tube assembly **wherein the mixing tube assembly comprises;**

a first mixing tube assembly having a first mixing tube part forming a first half of the mixing tube, a first air supply tube part forming a first half of the air supply tube, and a plate shaped first connection member that extends outward from two opposite sides of the first mixing tube part and the first air supply part as a single unit so as to connect the first mixing tube part and the first air supply part as a single unit; and

a second mixing tube assembly having a second mixing tube part forming a second half of the mixing tube, a second air supply tube part forming a second half of the air supply tube, and a plate shaped second connection member that extends outward from two opposite sides of the second mixing tube part and the second air supply part as a single unit so as to connect the second mixing tube

part and the second air supply part as a single unit, wherein the second connection member is bonded with the first connection member as taught by *Riehl* '273 for the purpose of simplifying the assembly and replacement.

Claims 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Houlis* '243.

In Re Claim 13, *Houlis* '243 discloses the device as applied in Claim 8 above. *Houlis* '243 does not explicitly teach wherein each mixing tube, corresponding air supply tube, and corresponding connecting member are injection molded as a single unit.

It would have been an obvious matter of design choice to construct *Houlis* '243's mixing tube, air supply tube and connecting member as separate parts assembled together, since applicant has not disclosed that having the mixing tube, the air supply tube, and the connecting member as one injected molded unit solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the mixing tube, the air supply tube, and the connecting member as separate parts assembled together.

In Re Claim 26, *Houlis* '243 discloses the device as applied in Claim 22 above. *Houlis* '243 does not explicitly teach wherein the mixing tube assembly is formed as a single unit by injection molding.

It would have been an obvious matter of design choice to construct *Houlis* '243's mixing tube assembly formed from separate parts assembled together, since applicant

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has not disclosed that having **the mixing tube assembly formed as a single unit by injection molding** solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the mixing tube assembly formed from separate parts assembled together.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Houlis '243* in view of Herbert (US Patent No. 5,425,353) hereinafter *Herbert '353*.

In Re Claim 16, *Houlis '243* discloses **the device** as applied in **Claim 1** above, wherein **the at least one fan includes; a motor**. *Houlis '243* does not explicitly disclose a variable speed motor that varies a rotation speed of the at least one fan based on a gas spray rate through one or more of the plurality of gas nozzles. *Herbert '353* discloses a cooking hob wherein the fan (#20) includes a variable speed motor that varies a rotation speed of the at least one fan based on a gas spray rate through one or more of the plurality of gas nozzles (col. 2, line 65-67, *Herbert '353*).

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to use a fan as described by *Herbert '353* above in place of *Houlis '243*'s to include **a variable speed motor that varies a rotation speed of the at least one fan based on a gas spray rate through one or more of the plurality of gas nozzles** in order to maintain the desired gas/air ratio during a cooking cycle.

Response to Arguments

Applicant's arguments with respect to claims 1-5 and 7-28 have been considered but are moot in view of the new ground(s) of rejection as necessitated by applicant's RCE dated 13 April 2011.

Joint Inventorship

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached USPTO form 892 for list of prior art made of record.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DESMOND PEYTON whose telephone number is (571)270-1393. The examiner can normally be reached on Monday-Friday 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./ 11/2/2011
Examiner, Art Unit 3749

/STEVEN B. MCALLISTER/
Supervisory Patent Examiner, Art Unit 3749